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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,269	03/03/2004	Hyun-Jei Chung	SDIYPL-386AUS	8941
20995 7590 08/17/2011 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER HODGE, ROBERT W				
ART UNIT		PAPER NUMBER		
1729				
NOTIFICATION DATE		DELIVERY MODE		
08/17/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
efiling@kmob.com
eOAPilot@kmob.com

Office Action Summary

Application No.

10/791,269

Applicant(s)

CHUNG ET AL.

Examiner

ROBERT HODGE

Art Unit

1729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see amendments and remarks, filed 6/23/11, with respect to the rejection of claims 1, 8 and 19 under 35 U.S.C. 112, first paragraph have been fully considered and are persuasive. The rejection of claims 1, 8 and 19 under 35 U.S.C. 112, first paragraph has been withdrawn.

The remainder of applicant's arguments with respect to claims 1, 8 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,387,567 hereinafter Noh in view of Applicants' Admitted Prior Art hereinafter AAPA.

Regarding claims 1 and 19, as seen in figures 2, 4 and 7, Noh teaches a pouch-type lithium secondary battery comprising a battery unit 20 comprising: a positive electrode plate 21, a separator 23, and a negative electrode plate 22, wherein the separator is disposed between the positive and negative electrode plates; electrode tabs 25 and 27 extending from each of the positive and negative electrode plates; a case having a space 32 to accommodate the battery unit, comprising an upper case body 33 having a main surface and a lower case body 31 having a main surface,

wherein the upper and lower case bodies are joined together at a sealing portion 31a and 33a disposed along the periphery of the space, wherein the sealing portion comprises an edge, wherein the case has an outer wall substantially perpendicular to the main surfaces of the upper and lower case bodies; and a short circuit protection means 43 directly connected to the positive and negative electrode tabs, wherein the electrode tabs extend from the positive and negative electrode plates, through the sealing portion and past the edge of the sealing portion, and are bent only once so as to extend in a plane that is disposed at a substantially right angle with respect to a plane of the sealing portion, without substantially extending beyond a thickness of the case, wherein the short circuit protection means is disposed between the outer wall of the case and the bent electrode tabs, wherein the electrode tabs are bent in a direction that is vertical with respect to the sealing portion of the case, so that the vertically extending portions of the electrode tabs are positioned outwards of the edge of the sealing portion, and wherein the electrode tabs have main surfaces that are disposed parallel to the outer wall of the case, in an upright position, and are substantially perpendicular to a contact surface at which the electrode tabs contact the edge of the sealing portion, wherein the electrode tabs connect to the short circuit protection means on a side opposite to the outer wall of the case (see whole document, including but not limited to: Abstract, and column 3, line 66 – column 5, line 65).

Regarding claim 1, Noh does not teach that the short circuit protection means is a protection circuit board.

As seen in figures 1 and 2 and described in paragraphs [0003]-[0015] of the instant specification, AAPA teaches a pouch type lithium secondary battery 10, comprising a battery unit 11 comprising a positive electrode plate 13, a negative electrode plate 14, a separator 15 disposed between the positive and negative electrode plates, electrode tabs 16 and 17 extending from the respective positive and negative electrode plates, a protection circuit board 100 with electrode terminals 101 and 102 that are directly electrically connected to the electrode tabs, the electrode tabs further comprise insulating tape 18 between the electrode tabs and the sealing surface such that the insulating tape is wrapped around the portions of the electrode tabs bent from a leading edge of the sealing surface.

At the time of the invention it would have been obvious to one having ordinary skill in the art to substitute the protection circuit board for the short circuit protection means of Noh as taught by AAPA in order to provide a pouch type lithium battery that not only prevents short circuiting between the positive and negative tabs but will add an addition layer of protection to the secondary battery during charge and discharge to prevent the battery from exploding such as by overcharging. Simple substitution of one known element (protection circuit board) for another (short circuit protection means) would achieve the predictable results of provide a pouch type lithium battery that not only prevents short circuiting between the positive and negative tabs but will add an addition layer of protection to the secondary battery during charge and discharge to prevent the battery from exploding such as by overcharging. See MPEP 2141 (III) Rationale B, KSR v. Teleflex (Supreme Court 2007).

Regarding claim 8, Noh does not teach insulating tape around the electrode tabs.

AAPA as discussed above is incorporated herein.

At the time of the invention it would have been obvious to one having ordinary skill in the art to wrap insulating tape around the electrode tabs of Noh as taught by AAPA in order to increase the sealing efficiency of the battery. If a technique has been used to improve one device (wrapping insulating tape around the electrode tabs), and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way (increasing the sealing efficiency of the battery), using the technique is obvious unless its actual application is beyond his or her skill. See MPEP 2141 (III) Rationale C, KSR v. Teleflex (Supreme Court 2007).

Claims 1, 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art hereinafter AAPA in view of U.S. Patent No. 6,387,567 hereinafter Noh.

Regarding claims 1, 8 and 19, AAPA as discussed above is incorporated herein. AAPA further teaches a case 12, comprising upper and lower case bodies both having a main surface and both of which form a space 12a to accommodate the battery unit, a sealing surface 12b along the periphery of the space joining the upper and lower case bodies together, wherein the sealing portion comprises an edge, wherein the case has an outer wall substantially perpendicular to the main surface of the upper and lower case bodies, wherein the electrode tabs extend from the electrode plates through the sealing portion past the edge of the sealing portion and are bent (see citations above).

AAPA does not teach that the tabs are bent only once at a substantially right angle with respect to a plane of the sealing portion.

Noh as discussed above is incorporated herein.

At the time of the invention it would have been obvious to one having ordinary skill in the art to bend the tabs of AAPA only once at a substantially perpendicular angle as taught by Noh in order to minimize the volume occupied by the pouch type lithium secondary battery (column 5, lines 40 et seq. of Noh) thereby enhancing the productivity of the pouch-type lithium secondary battery by reducing defects and improving the overall safety of the battery (column 6, lines 25 et seq.) and also since it has been held that rearranging parts of an invention involves only routine skill in the art. In *re* Japikse, 86 USPQ 70. If a technique has been used to improve one device (bending tabs only once at a substantially perpendicular angle), and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way (minimizing the volume occupied by the pouch type lithium secondary battery (column 5, lines 40 et seq. of Noh) thereby enhancing the productivity of the pouch-type lithium secondary battery by reducing defects and improving the overall safety of the battery (column 6, lines 25 et seq.)), using the technique is obvious unless its actual application is beyond his or her skill. See MPEP 2141 (III) Rationale C, *KSR v. Teleflex* (Supreme Court 2007).

In the alternative AAPA teaches the claimed invention except for bending the electrode tabs only once at a substantially right angle. It is noted that the orientation of the tabs will not effect the operation of the battery as a whole because the tabs will still

be connected to the protection circuit board regardless of how they are bent and therefore it would have been obvious to one having ordinary skill in the art to bend the tabs only once at a substantially right angle since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ula Ruddock can be reached on (571) 272-1481. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Hodge/
Primary Examiner, Art Unit 1729

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